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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,675	05/16/2006	Thomas Frohlich	FROH3004/FJD	8581
23364	7590	10/30/2006	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			HUYNH, PHUONG	
			ART UNIT	PAPER NUMBER
			2857	

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/535,675	Applicant(s) FROHLICH ET AL.	
	Examiner Phuong Huynh	Art Unit 2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-22 is/are rejected.
- 7) ☒ Claim(s) 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>May 19, 2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-16, and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Letton (hereinafter Letton) (US Patent No. 6,209,388) in view of Eryurek et al. (hereinafter Eryurek) (US Patent Application Pub. No. 2002/0029130).

Regarding claims 12 and 18, Letton discloses a method for determining and/or monitoring the volume flow rate of a medium flowing in a containment, comprising the steps of:

measuring signals are emitted from an ultrasonic transducer placed in a first position on the containment; receiving the measuring signals by an ultrasonic transducer placed in a second position on the containment [see Letton: col. 1, lines 48-50; and col. 8, lines 4-11];

providing information on the basis of the measuring signals, or on the basis of measuring data obtained from the measuring signals, concerning the volume flow rate of the medium located in the containment [see Letton: col. 2, lines 50-63; and col. 8, lines 30-45];

Letton does not disclose "comparing the currently measured, actual measuring signals, or the corresponding actual measuring data with corresponding, stored, set measuring signals, or set measuring data; and issuing a report, when a deviation arises between the set measuring signals, or set measuring data, and the actual measuring signals, or actual measuring data."

Eryurek teaches a diagnostic application that "[compares] the currently measured, actual measuring signals, or the corresponding actual measuring data with corresponding, stored, set measuring signals, or set measuring data; and issuing a report, when a deviation arises between the set measuring signals, or set measuring data, and the actual measuring signals, or actual measuring data" [see Eryurek: Abstract; Paragraphs [0035]-[0037]].

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the invention of Letton to include the diagnostic application, as taught by Eryurek, to obtain a better diagnostic technology providing more predictive, for reducing cost or improving reliability as well as providing a diagnostic application which can be provided over a network from an application service provider of other source and can run on the control system or another remote computer [see Eryurek: Paragraphs [0005], and [0011]].

Regarding claim 13, Letton discloses the step of deriving signatures from the actual measuring signals, or actual measuring signals and from the set measuring signals, or set measuring data, wherein the signatures describe each of the measuring signals sufficiently accurately [see Letton: col. 8, lines 30-58].

Regarding claim 14, Letton discloses that the set measuring signals are determined for not-filled and/or for filled containment [see Letton: col. 8, lines 30-37].

Regarding claim 15, Letton does not disclose the steps of "digitizing and storing the actual measuring signals, or set measuring signals and/or the corresponding signatures," "comparing the actual measuring signals/actual measuring data, or the signature determined from the actual measuring signals/actual measuring data, with the corresponding set measuring signals/set measuring data or the corresponding signature of the set measuring signals/measuring data," and "issuing a report, when a deviation arises between the actual and set measuring signals/measuring data, or between the actual and set signatures, which lies outside of a predetermined tolerance value."

Eryurek teaches the steps of "digitizing and storing the actual measuring signals, or set measuring signals and/or the corresponding signatures [see Eryurek: Paragraph [0050]],"

"comparing the actual measuring signals/actual measuring data, or the signature determined from the actual measuring signals/actual measuring data, with the corresponding set measuring signals/set measuring data or the corresponding signature of the set measuring signals/measuring data [see Eryurek: Paragraph [0051]],"

and "issuing a report, when a deviation arises between the actual and set measuring signals/measuring data, or between the actual and set signatures, which lies outside of a predetermined tolerance value [see Eryurek: Paragraphs [0052], [0058]]."

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the invention of Letton to include the diagnostic application, as taught by Eryurek, to obtain a better diagnostic technology providing more predictive, for reducing cost or improving reliability as well as providing a diagnostic application which can be provided over a network from an application service provider of other source and can run on the control system or another remote computer [see Eryurek: Paragraphs [0005], and [0011]].

Regarding claims 16 and 19, Letton does not disclose the step of "making a statement on the basis of the comparison of the actual measuring signals/actual measuring data, or on the basis of the comparison of the signatures of the actual measuring signals/actual measuring data, with the set measuring signals/set measuring data, or the corresponding signatures of the set measuring signals/set measuring data, as to which defective system and/or process variable is causing the deviation."

Eryurek teaches the step of "making a statement on the basis of the comparison of the actual measuring signals/actual measuring data, or on the basis of the comparison of the signatures of the actual measuring signals/actual measuring data, with the set measuring signals/set measuring data, or the corresponding signatures of the set measuring signals/set measuring data, as to which defective system and/or process variable is causing the deviation [see Eryurek: Paragraphs [0035], [0055], and [0058]]."

Art Unit: 2857

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the invention of Letton to include the diagnostic application, as taught by Eryurek, to obtain a better diagnostic technology providing more predictive, for reducing cost or improving reliability as well as providing a diagnostic application which can be provided over a network from an application service provider of other source and can run on the control system or another remote computer [see Eryurek: Paragraphs [0005], and [0011]].

Regarding claim 20, Letton discloses that the arrangement of said ultrasonic transducers is a one-traverse arrangement or a multi-traverse arrangement [see Letton: col. 2, lines 42-52].

Regarding claim 21, Letton discloses that at least two ultrasonic transducers having the greatest separation from one another work alternately in emitting and receiving operation [see Letton: col. 1, lines 55-col. 2, line 6; and col. 2, lines 42-52].

Regarding claim 22, Letton discloses that at least two ultrasonic transducer are mounted on the containment according to the clamp-on method

Allowable Subject Matter

2. Claims 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2857

Conclusion

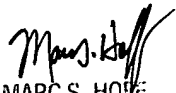
3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Huynh whose telephone number is 571-272-2718. The examiner can normally be reached on M-F: 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Phuong Huynh
Examiner
Art Unit 2857

PH
October 23, 2006


MARC S. HOFF
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